

1K Pitch modified Polyurethane elastomeric liquid Waterproofing Membrane

DESCRIPTION

TIKI AQUASEAL PU-B is a single component, high solids, moisture-curing, Pitch modified Polyurethane elastomeric liquid membrane for waterproofing for exterior below-grade or between-slab applications.

TIKI AQUASEAL PU-B forms a seamless monolithic membrane by reaction with atmospheric moisture. It conforms to ASTM C-836 and ASTM C-898.

USES

- Below grade slabs
- Exterior below-grade (on concrete & masonry)
- Roof, terraces, podium (covered condition)
- Terrace garden and planter box
- Balconies
- Walls and culverts in saline area

ADVANTAGES

- Forms monolithic and seamless membrane
- Excellent adhesion to concrete
- Excellent waterproofing characteristics
- High elongation and crack bridging
- Seamless cold application eliminates lapping
- Chemical resistance to mild acids and alkalis
- Resistant to root growth
- Durable performance
- Easy application and user friendly
- Does not require hot-melt equipment

APPLICATION INSTRUCTIONS

SURFACE PREPARATION

Clean the surface mechanically or by grinding to remove all loose gravel, dirt, oil, grease and foreign matter. Blow away the dust by jet of dry air.

All cracks on the substrate shall be opened up by cutting "V" groove and filled with polymer modified mortar modified using **DANOCRET SBR**.

Provide coving of 75mm x 75mm all along the horizontal-vertical joints. Coving shall be of polymer modified mortar modified using **DANOCRET SBR**.

Ensure that the moisture content in the prepared surface does not exceed 5% immediately before application of **TIKI AQUASEAL PU-B**.

SURFACE PRIMING

TIKI AQUASEAL PU-B has excellent adhesion to most types of substrates, as well as bituminous, without the use of primers.

Nevertheless, testing before use is strongly advised.

In case of porous surface apply **TIKI PRIME PU** Polyurethane based clear primer @ 8 to 10 m² per ltr., per coat on well prepared substrate, covering the entire area uniformly. (Coverage may vary depending upon the nature and texture of substrate). Allow the primer to dry.

Refer TDS of **TIKI PRIME PU** for technical and application details.

MATERIAL PREPARATION

Mix **TIKI AQUASEAL PU-B** in the pail using a slow speed mixer (approx. 400 rpm) fitted with a suitable mixing paddle to ensure a homogenous mix. After stirring, wait for the product to settle in order to let entrapped air escape.

Skin formation may happen on the top of material during humid condition. In that event, cut skin from the periphery of the container and remove it and then stir it as mentioned above.

NOTE: Use material within 4 hours of opening the container. As the product is moisture curing, once the packing is open, use entire quantity.

Do not use part quantity, otherwise skin formation may occur in remaining unused material in packing.

Apply **TIKI AQUASEAL PU-B** in two coats by brush / roller / airless spray while the primed surface is tacky. For faster and smoother application, apply with airless gun to form a dry film thickness of minimum 1.2 mm.

For High-Build application, spread non-woven polyester geo-textile matt of 30 to 50 gsm as reinforcing layer on uneven area, joint area and corner area with overlaps of 50 mm in both directions. This is optional, to be assessed as per site requirements to achieve high mechanical properties and smooth application. In such case, apply material in two coats.

Apply 1st coat of **TIKI AQUASEAL PU-B** by brush / roller / airless spray, immediately followed by laying of geo-textile on wet first coat. Allow 1st coat to dry for 10 to 12 hr followed by application of 2nd coat.

Sprinkle sand @200 gm/m² over final vertical coating when coating is still tacky to facilitate plastering.

Ensure final curing time of 7 days before allowing / carrying out any further work.

Extend waterproofing treatment up to 200 mm and terminate into groove on the parapet wall. Fill the groove with polymer modified mortar modified using **DANOCRET SBR**. Apply 15 mm plaster modified with **DANOCRET SBR**.

PONDING TEST

Conduct ponding test after 7 days from the day of laying of final coat. Do not allow any movement over waterproofed area unless ponding is done and waterproofed area is protected as below.

PROTECTION OF WATERPROOFING

Cover the waterproofing with a separation layer of non-woven polypropylene geotextile. This membrane acts as a slip membrane between the waterproofing layer and protection screed. It also protects the waterproofing membrane from damage during pouring of concrete screed.

Over the separation layer, concrete screed of M20 shall be laid to provide a slope of 1 in 100 for the storm water run-off. This screed will also provide the required protection to waterproofing system. The minimum thickness of screed at any point shall not be less than 50 mm. The screed shall have nominal reinforcement of 6mm at 300 c/c or shall be done with SFRC (steel fibre reinforced concrete).

APPLICATION DATA

Application	Brush/Roller/Airless Spray
Touch dry	1 to 2 days
Swelling in water	Nil
Service temperature range	-40°C to +70°C
Consumption* in two coats	1.9 to 2.0 Kg. /m ² @1.5mm dft
Color	Black
Final cure time	7 days
Chemical stability	Resistant to mild acids / alkalis
Specific gravity	1.2 Kg. /ltr.
Solid content	90 ± 2 %

*Coverage / consumption is approximate and it depends upon the site conditions and surface porosity at the time of application.

CLEANING

Immediately after application of **TIKI AQUASEAL PU-B**, use suitable aromatic solvent for cleaning application tools.

PROPERTIES OF APPLIED PRODUCT

Properties	Values	Test Standard
Elongation	400 ± 50 %	ASTM D412
Hardness Shore A	15 ± 3	ASTM D2240
Crack bridging at low temperature at -9°C	≤ 1.5 mm	ASTM C836
Adhesion to primed concrete (Pull-off strength)	1.5 ± 0.5 N/mm ²	ASTM D4541
Tensile strength	1.0 ± 0.20 N/mm ²	ASTM D412
Extension after heat aging	6.4 with no cracking	ASTM C836

SUPPLY

TIKI AQUASEAL PU-B is supplied in 24 Kg. (20 liter) drum and has a shelf life of 6 months in the unopened containers.

STORAGE

Store in a cool dry clean place, at 4°C to 30°C, in original sealed container. In the unlikely event of formation of an easily removable protective skin of **TIKI AQUASEAL PU-B** on top during storage, remove the film before applying the material.

SAFETY PRECAUTIONS

Avoid contact with skin / eyes, and avoid swallowing. Ensure adequate ventilation and avoid inhalation of vapour.

Wear suitable protective clothing, gloves and eye protection.

In case of skin contact, rinse with plenty of clean water, then cleanse with soap and water. Do not use solvent to clean the contacted area.

In case of eye contact, wash with plenty of clean water and seek medical advice.

If swallowed, seek medical attention immediately. Do not induce vomiting.

VERSION: R7, 202203

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